

USSR / Human and Animal Physiology. Nervous System.
Higher Nervous Activity. Behavior.

T

Abs Jour: Ref Zhur-Biol., No 22, 1958, 102273.

Abstract: stressed; the concept of P of HNA and their essence is analyzed, the problem of their psychological manifestation is laid down (P of HNA as the physiological basis of the peculiarities of temperament, character and abilities).-- M. I. Lisina.

Card 2/2

101

TEPLOV, B.M.; BORISOVA, N.M.

Sensitivity to discrimination and sensorial memory. Vop.psikhol.3
no.1:61-77 Ja-P '57 (MIRA 10:3)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR, Moskva.
(Memory) (Perception)

TRPLOV, B.M.

Principal ideas in the psychological works of N.N. Lange; on the centennial of his birth [with summary in English]. Vop.psikh.
4 no.6:44-65 N-D '58. (MIRA 12:1)

1. Institut psikhologii APN RSFSR. Moskva.
(Lange, Nikolai Nikolaevich, 1858-1921) (Psychology)

ANAN'YEV, B.G., red.; KOSTYUK, G.S., red.; LEONT'YEV, A.N., red.; LURIYA, A.R., red.; MENCHINSKAYA, N.A., red.; RUBINSHTEYN, S.L., red.; SMIRNOV, A.A., red.; TEPLOV, B.M., red.; SHEMYAKIN, P.N., red.; ZHUKOV, I.V., red.; PONOMAREV, Ya.A., red.; MATYUSHKIN, A.M., red.; LAUT, V.G., tekhn.red.

[Psychology in the U.S.S.R.] Psikhologicheskaya nauka v SSSR.
Moskva. Vol.1. 1959. 597 p. (MIRA 12:8)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut
psikhologii.

(Psychology)

TEPLOV, B.M., otv.red.; TARASOVA, K.V., red.; NOVOSELOVA, V.V., tekhn.red.

[Typological peculiarities of the higher nervous system in man]
Tipologicheskie osobennosti vysshei nervnoi deiatel'nosti cheloveka. Otvet.red.B.M.Teplov. Moskva, Vol.2. 1959. 228 p.

(MIRA 13:6)

1.Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut psikhologii. 2. Deystvitel'nyy chlen Akademii pedagogicheskikh nauk RSFSR (for Teplov).

(TEMPERAMENT)

(NERVOUS SYSTEM)

ANAN'YEV, B.G., red.; KOSTYUK, G.S., red.; LEONT'YEV, A.N., red.; LURIYA,
A.R., red.; MENCHINSKAYA, N.A., red.; RUBINSHTEYN, S.L., red.
[deceased]; SMIRNOV, A.A., red.; TEPOV, B.M., red.; SHEMYAKIN,
F.N., red.; PONOMAREV, Ya.A., red.; LAUF, V.G., tekhn.red.

[Psychology in the U.S.S.R.] Psikhologicheskaya nauka v SSSR.
Moskva. Vol.2. 1960. 653 p. (MIRA 14:1)

1. Akademiya pedagogicheskikh nauk RSFSR. Institut psikhologii.
(Psychology)

TEPLOV, B.M.

Concerning the historical evaluation of the psychological
conception of N.N.Lange; reply to A.A.Shein. Vop. psikhol.
6 no. 6:145-148 M-D '60. (MIRA 13:12)
(Lange, Nikolai Nikolaevich, 1858-1921)
(Shein, A.A.)

TEPLOV, Boris M. (USSR)

"Les Fondements Psychologiques des Differences Individuelles."

Paper presented at the 14th International Congress of Applied Psychology,
Copenhagen, Denmark, 13-19 Aug. 1961.

RUBINSHTEYN, S.I.; SOKOLOV, A.N.; LURIYA, A.R.; LEONT'YEV, A.N.; SMIRNOV, A.A.; GOMOBOLIN, F.N.; MENCHINSKAYA, N.A.; ZHINKIN, N.I.; IGNAT'YEV, Ye.N.; EL'KONIN, D.B.; GUREVICH, K.M.; GUR'YANOV, Ye.V.; LEYTES, N.S.; KRUIETSKIY, V.A. Prinimali uchastiye: POLYAKOV, G.I.; SHEMYAKIN, F.N.; TEPLOV, B.M., red.; VVEDENSKAYA, L.A., red.; DRANNIKOVA, M.S., tekhn. red.

[Psychology]Psikhologiya; uchebnik dlia pedagogicheskikh institutov. Pod red. A.A.Smirnova i dr. Izd.2. Moskva, Uchpedgiz, 1962. 558 p.

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. In-^(MIRA 15:11)stitut psikhologii.

(PSYCHOLOGY)

TEPLOV, B.M., otv. red.; DENOTKINA, L.S., red.; NOVOSELOVA, V.V.,
tekhn. red.

[Typological characteristics of higher nervous activity in
man] Tipologicheskie osobennosti vysshei nervnoi deiatel'-
nosti cheloveka. Moskva, Izd-vo APN RSFSR. Vol.3. 1963.
273 p. (MIRA 16:10)

1. Akademiya pedagogicheskikh nauk RSFSR, Moscow. Institut
psikhologii. 2. Deystvitel'nyy chlen APN RSFSR (for Teplov).
(NERVOUS SYSTEM)

TEPLOV, B.M.

Concerning the publication of N.N.Lange's manuscript "Helmholtz
as a psychologist." Vop.psikhol. 9 no.2:141-143 Mr-Apr '63.

(MIRA 16:4)

(Helmholtz, Herman, 1821-1894)

TEPLOV, B.M.; NEBYLITSYN, V.D.

Study of the basic properties of the nervous system and their importance for the psychology of individual differences.

Vop. psikhol. 9 no.5:38-47 S-0'63.

(MIRA 17:2)

1. Institut psikhologii Akademii pedagogicheskikh nauk RSFSR, Moskva.

TEPLOV, B.M.; NEBYLITSIN, V.D.

Experimental study of the properties of the human nervous
system. Zhur. vys. nerv. deiat. 13 no.5. 789-797 8-0'63
(MIRA 16:11)

1. Laboratory of Psychophysiology, Institute of Psychology,
R.S.F.S.R. Academy of Pedagogical Sciences, Moscow.

TEPLOV, B. M.

"Sovremennoye sostoyaniye voprosa o tipakh vysshey nervnoy deyatel'nosti
cheloveka i metodikakh ikh opredeleniya."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences,
Moscow, 3-10 Aug 64.

TEPLOV, D.

"Solion" - an invention of nature. IUn.tekh. 3 no.5:26-27
My '59. (MIRA 12:7)

(Physical instruments)

TEPLOV, D. YU.

Teplov, D. Yu. — "Scientific-Technical Abstract Journals and Certain Questions of the Organization of Scientific Information in the USSR." Min Culture RSFSR, Leningrad State Library Inst imeni N. K. Krupskaya, Leningrad, 1955 (Dissertation for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis', No. 24, Moscow, Jun 55, pp 91-104

TEPLOV, Daniil Yur'yevich; MIREK, V.F., otv. red.; SUVOROV, I.V.,
red. izd-va; GALIGANOVA, L.M., tekhn. red.

[Technological bibliography in the U.S.S.R.; a brief historical
account] Informatsionno-tekhnicheskaya bibliografiya v SSSR;
kratkii istoricheskii ocherk. Moskva, Izd-vo Akad.nauk SSSR,
1962. 123 p. (MIRA 15:2)
(Bibliography--Technology)

137-58-1-1770

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 241 (USSR)

AUTHORS: Teplov, F.S., Vol'vak, N.Ya.

TITLE: Experiences in the Employment of Trolley Bus Rear-axle Shafts Strengthened by Shot Peening (Opyt ekspluatatsii poluosey trolleybusa, uprochnennykh drobestrurnym naklepom)

PERIODICAL: V sb.: Vopr. konstrukts. prochnosti stali. Moscow, Mashgiz, 1957, pp 100-103 *RS*

ABSTRACT: A communication to the effect that shot peening of trolley bus rear-axle shafts made of 37KhNZA steel and heat treated for R_C 44-46 increases the service life almost threefold. The economies due to the introduction of axle shafts strengthened by shot peening at the Moscow Trolley Bus Depots is about 400-500,000 rubles per year. It is recommended that auto and tractor plants transfer to the strengthening of axle shafts and other parts by shot peening.

A.B.

1. Machine parts--Peening 2. Steel--Heat treating

Card 1/1

ТЕПЛОВ, F.S.

Student dissertation of K.A. Timiriasev. Vop.ist.est.i tekhn.
no.9:138-140 '60. (MIRA 13:7)
(LIVERWORTS)

TEPLOV, G., inzh.

Variable condenser. Radio no.7:39-41 JI '65. (MIRA 18:9)

TEPLOV, G.V.

Operativno-proizvodstvennoe planirovanie na mashinostroitel'nykh zavodakh. 2. perer.
izd. Utverzhdeno v kachestve uchebn. posobiia dlia stankoinstrumental'nykh in-tov.
Moskva, Mashgiz, 1946. 263 p. illus

Planning machine-building plant operations.

MLC: TJI135. T38 1946

CtY MH MN

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953.

TEPLOV, G. V.

Planirovanie na mashinostroitel'nykh zavodakh. Top. v kachestve ucheln. posobiia dlia inzh. -ekon. in-tov. Moskva, Mashgiz, 1949. 443 p. diagrs.

Planning in machine-building plants.

CU MH NNC

DLC: TJ1135.T4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

TEPLOV, G. V.

Puti sokrashcheniia proizvodstvennogo tsikla. Moskva, Gosplanizdat, 1950.
38 p.

Methods of reducing the production cycle.

DLC: T58.T44

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

TEPLOV, G.V.; PRUDENSKIY, G.A., doktor ekonomicheskikh nauk, retsenzent;
ZHED', M.S., inzhener, retsenzent.

[Planning in machinebuilding plants] Planirovanie na mashinostroi-
tel'nykh zavodakh. Izd.2., perer.i dop. Moskva, Gos. nauchno-tekh.
izd-vo mashinostroit. i sudostroit. lit-ry, 1953. 511 p. (MLRA 7:4)
(Machinery industry)

TEPLOW, Georgii Vasil'yevich

[Even and rhythmic work of machine-building plants] Ravnemernaya i ritmichnaya rabota mashinostroitel'nogo zavoda. Moskva, Znanie, 1955. 39 p. (Vsesoiuznoe obshchestvo po rasprestraneniю politicheskikh i nauchnykh znanii. Seriya 2, no.49). (MLRA 9:4)
(Machinery industry)

TEPLOV, Georgiy Vasil'yevich.

Academic title of Doctor of Economic Sciences, based on his defense 8 January 1954 in the Council of Moscow Engineering-Economic Institute Ordzhonikidze, of his dissertation entitled: "Economic Problems in the Planning of Production Management Activity of Socialist Industrial Enterprises," and the Academic title of Professor in the Chair: "Economics and Organization of Enterprises."

Academic degree: Doctor of Sciences
Academic title: Professor

SO: Decisions of VAK, List no. 12, 28 May 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

GEPILOV, Georgiy Vasil'yevich; TYAGAY, Ye., redaktor; MUKHIN, Yu., tekhnicheskii redaktor.

[Planning in industrial enterprises] Planirovaniye na promyshlennom predpriyatii. Moskva, Gos. izd-vo polit. lit-ry, 1956. 80 p.
(Industrial organization) (MLRA 9:5)

HOZENBERG, Ivan Aleksandrovich; ~~TEPLOV, G.V.~~, doktor ekonomicheskikh nauk
professor, ratsenzent; DUGINA, N.A., tekhnicheskii redaktor

[Shortening the production cycle in machine manufacture] Sokrashche-
nie dlitel'nosti proizvodstvennogo tsikla v mashinostroenii.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 113 p.
(Machinery industry) (MIRA 10:3)

DNERGACHEV, Aleksandr Fedorovich, kand.ekon.nauk; TEPLOV, G.V., prof., doktor
ekonem.nauk, red.; YABLOKOV, V.I., red.; MAL'KOVA, N.V., tekhn.red.

[Organization and planning of automobile and road-machinery repair
shops] Organizatsiia i planirovanie predpriatii po remontu avto-
mobilei i dorozhnykh mashin. Pod red. G.V.Teplova. Moskva,
Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh
dorog RSFSR, 1958. 303 p. (MIRA 12:3)
(Automobiles--Repairing) (Road machinery--Maintenance and repair)

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLY, G.V.; LOKSHIN, E.Yu.; KARPENKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.F.; PERESLEGIN, V.I.. Prini-
mal uchastiye VOLODARSKIY, L.M.; TYAGAY, Ye., red.; POPOVA, T.,
tekhn.red.

[Economy of socialist industrial enterprises; textbook] Ekonomika
sotsialisticheskikh promyshlennykh predpriyatii; uchebnik. Moskva,
Gos.izd-vo polit.lit-ry, 1959. 591 p. (MIRA 13:3)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya partiynaya
shkola. 2. Zamestitel' nachal'nika Tsentral'nogo statisticheskogo
upravleniya SSSR (for Volodarskiy).
(Industrial management)

RUMYANTSEVA, Z.P., kand. ekonom. nauk, dots.; TEPLOV, G.V., doktor ekonom. nauk, prof., red.; KHALUGA, A., tekhn. red.

[Using a linear programming system in planning the operations of civil aviation] Primenenie lineinogo programmirovaniia v planirovanii grazhdanskogo vozdushnogo flota; konspekt lektsii dlia studentov fakul'teta otdeleniia vozdushnogo transporta. Red. G.V.Teplov. Moskva, Mosk. inzhenerno-ekon. in-t im. Sergo Ordzhonikidze, 1960. 42 p.

(MIRA 15:2)

(Aeronautics, Commercial) (Linear programming)

RAZUMOV, Ippolit Mikhaylovich, prof., doktor ekonom.nauk; SHUKHGAL'TER, Lev Yakovlevich, dotsent, kand.tekhn.nauk; TEPLOV, Georgiy Vasil'yevich, prof., doktor ekonom.nauk; TATUR, Sergey Kuz'mich, prof., doktor ekonom.nauk; KATSENBOKEN, Boris Yakovlevich, dotsent, kand.tekhn.nauk [deceased]; LETENKO, Viktor Aleksandrovich, dotsent, kand.ekonom.nauk; MURAV'YEV, Mikhail Semenovich, dotsent, kand.tekhn.nauk; KOMAROV, F.V., inzh., retsenzent; METT, G.Ya., dotsent, red.; SALTANSKIY, A.A., red.isd-va; SOKOLOVA, T.F., tekhn. red.; SMIRNOVA, G.V., tekhn.red.

[Organizing and planning machinery plants] Organizatsiia i planirovanie mashinostroitel'nykh predpriatii. Pod red. I.M.Razumova i L.IA. Shukhgal'tera. Moskva, Gos.nauchno-tekhn.isd-vo mashinostroit. lit-ry. 1960. 491 p. (MIRA 13:6)

(Machinery industry)

TEPLOV, G.V., prof., doktor ekon.nauk; Prinsipal uchastiye STEPANOV, A.Ya..
PANTER, B.Ya., inzh., retsenzent; BOGINSKIY, M.N., inzh.-ekon.,
red.; SALYANSKIY, A.A., red.isd-va; EL'KIND, V.D., tekhn.red.

[Planning at machinery plants] Planirovanie na mashinostroitel'-
nykh zavodakh. Izd.3, perer. Moskva, Gos.nauchno-tekhn.isd-vo
mashinostroit.lit-ry, 1960. 480 p. (MIRA 13:4)
(Machinery industry)

~~TEPLOV, Georgiy Vasil'yevich~~, doktor ekonom.nauk; RUMYANTSEVA, Zinaida
Petrovna, kand.ekonom.nauk; DUBROVSKIY, Yu.N., red.;
SAVCHENKO, Ye.V., tekhn.red.

[Mathematical methods of economic calculations] Matematicheskie
metody ekonomicheskikh raschetov. Moskva, Izd-vo "Znanie," 1961.
31 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh
i nauchnykh znaniy. Ser.3, Ekonomika, no.5).

(MIRA 14:3)

(Economics, Mathematical) (Programming (Mathematics))

RUMYANTSEV, A.F.; YEFIMOV, A.N.; TEPLOV, G.V.; LOKSHIN, E.Yu.;
KARPENKO, A.P.; GRIGOR'YEV, A.Ye.; FILIPPOV, V.F.;
PERESLEGIN, V.I.; TYAGAY, Ye., red.; TROYANOVSKAYA, N.,
tekhn. red.

[Economics of industrial enterprises] Ekonomika promyshlen-
nykh predpriyatii; uchebnik. 3. izd., perer. Moskva, Gos-
politizdat, 1963. 574 p. (MIRA 16:10)

1. Kommunisticheskaya partiya Sovetskogo Soyuza. Vysshaya
partiynaya shkola.

(Industrial management)

PAVLOVA, A.I.; GUNEYEV, G.S., inzh.-ekon. retsenzant; TEPLOV, G.V.,
doktor ekon. nauk, red.; SALYANSKIY, A.A., red. 13d-va

[Planning by individual orders in machinery manufacturing]
Planirovanie po individual'nym zakazam v mashinostroenii.
Moskva, Mashgiz, 1963. 70 p. (MIRA 16:10)
(Machinery industry)

TEPLOV, Georgiy Vasil'yevich, doktor ekon. nauk, prof.;
STEPANOV, A.Y.; EYDEL'MAN, B.I., red.

[Planning in an industrial enterprise; theory and
practice] Planirovanie na promyshlennom predpriatii;
teoriia i praktika. Moskva, Ekonomika, 1964. 478 p.
(MIRA 17:12)

MAVRINSKIY, Yu.S.; TEPIOV, I.A.

Tectonics and the oil potential of northwestern Sakhalin. Trudy
VNIGRI no.181:140-153 '61. (MIRA 15:2)
(Sakhalin--Petroleum geology)

TEPLOV, I.A.

Boyuklinka (Lower Cretaceous?) layers in the central part of Sakhalin.
(MIRA 17:2)

Trudy VNIGRI no.224:227-228 '63.

PHASE I BOOK EXPLOITATION

SOV/4788

Teplov, Georgiy Vasil'yevich, Doctor of Economic Sciences, Professor

Planirovaniye na mashinostroitel'nykh zavodakh (Planning at Machinery Plants)
3d ed., rev. Moscow, Mashgiz, 1960. 480 p. Errata slip inserted. 15,000
copies printed.

Reviewer: B.Ya. Panter, Engineer; Ed.: M.N. Boginskiy, Engineer-Economist;
Managing Ed. for Literature on the Economics and Organization of Production:
T.D. Saksaganskiy, Engineer; Ed. of Publishing House: A.A. Salyanskiy; Tech.
Ed.: V.D. El'kind,

PURPOSE: This textbook is intended for students of institutes of engineering
and economics and schools of higher education specializing in machinery con-
struction. It can be used by personnel of the machinery-construction industry.

COVERAGE: The book presents the theory and practice of compiling, analyzing, and
fulfilling plans at various machinery-construction plants having different vol-
umes of output. The following topics are discussed: content and goals of

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Planning at Machinery Plants

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planning; production cycle and its duration; problems in the smooth functioning of an establishment; and planning of production, supply, size of labor force, pay, costs, finance, and technical development of an establishment. Chapter IX was compiled by A.Ya. Stepanov. There are 36 references, all Soviet.

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Card ~~2/9~~

TEPLOV, I.B.

Investigation of (d,p) reactions in phosphorus and chlorine.
Zhur. eksp. i teor. fiz. 31 no.1:25-30 J1 '56. (MLRA 9:11)

1. Moskovskiy gosudarstvennyy universitet.
(Nuclear reactions)

TEPLOV, I. B.

WITH NEUDACHIN, V. G., "Reaction Cross Section on Deuteron Energy,"
with YURYEV, B. A. "Dependence of Angular Distributions in Stripping Reactions
upon the Charge of the Target Nuclei

Moscow State University)

papers submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy
Physics, Moscow, 19-27 Nov 1957.

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CIA-RDP86-00513R001755310018-0"

AUTHOR TEPILOV, I.B., JUR'EV, B.A., MARKELOVA, T.N. PA - 2036
 TITLE The Angular Distribution of the Products of the Reaction $S^{32}(d,p)S^{33}$.
 (Russian)
 PERIODICAL Zhurnal Eksperimental'noi i Teoret.Fiziki, 1957, Vol 32, Nr 1,
 pp 165-166 (U.S.S.R.)
 Received 3/1957 Reviewed 3/1957
 ABSTRACT At present the reactions of the type (d,p) have already been investigated for many isotopes of light nuclei. However, in the case of most of the investigated nuclei (with the exception of the very lightest) experiments were carried out only at a value of the energy of the inciding particles. At the same time the investigation of the form of the angular distributions of the products of such reactions at different energy values of the impinging deuterons is of interest for the more precise description of the theory of the stripping reaction. Therefore the authors determined the angular distributions of these protons which are produced on the occasion of the reaction $S^{32}(d,p)S^{33}$ at deuteron energies of 1,8 and 3,8 MeV. The electrons accelerated with a 72 cm cyclotron bombarded a sulphur target (of 1 micron thickness) which was applied to leaf-gold. The protons produced in connection with the reaction were recorded by nuclear plates.
 Angular distributions were determined for two groups of protons p_0 and p_1 , which correspond to the creation of a nucleus (in the end

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The Angular Distribution of the Products of the Reaction $S^{32}(d,p)S^{33}$. state, in the ground state, and in the first excited state). The experimental results obtained by the authors are shown in diagrams. For reasons of comparison these diagrams contain also the corresponding theoretical curves. The theoretical curves determine the position of the main maximum (i.e. of the maximum in the case of small angles) well in the angular distribution of the proton group p_1 . In the angular distribution of the group p_0 the experimentally found maximum was somewhat broader than the maximum computed theoretically, and besides it is displaced in the direction of smaller angles. This broadening of the peak and its displacement are considerably more marked in the case of a deuteron energy of 1,8 MeV than for 3,8 MeV. A characteristic peculiarity of the angular distributions obtained here is the existence of comparatively high maxima. These secondary maxima increase with a decrease of the energy of the incident deuterons. Also in the angular distribution for the group p_1 something similar may be observed. When explaining the peculiarities of the experimental angular distributions obtained here, it is necessary to take also Coulomb's interaction into account, because the effective Coulomb barrier of the S^{32} nucleus amounts to 5,1 MeV for deuterons. However, con-

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The Angular Distribution of the Products of the Reaction $S^{34}(d,p)S^{33}$.

sideration of Coulomb interaction displaces the main maximum towards larger angles and causes no noticeably secondary maxima. Better agreement is apparently obtained if not only Coulomb's interaction but also nuclear interaction of the emitted proton with the remaining nucleus is taken into account.

ASSOCIATION Moscow State University

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Card 3/3

TEPLOV, I. B.

AUTHORS: Teplov, I. B., Yur'yev, B. A. 56-6-1/47

TITLE: Investigation of the Reactions $K^{39}(d,p)K^{40}$ and $Ca^{40}(d,p)Ca^{41}$.
(Issledovaniye reaktsiy $K^{39}(d,p)K^{40}$ i $Ca^{40}(d,p)Ca^{41}$).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957,
Vol. 33, Nr 6, pp. 1313-1320 (USSR)

ABSTRACT: By means of a 72 cm collimated deuteron beam coming from a cyclotron thin targets of potassium and calcium were irradiated. These targets were located in the middle part of a cylindrical tube of 26 cm diameter. The interior wall of this tube was lined with nuclear photoplates. The energy of the deuterons could be kept on the level of exactly ± 40 KeV.

1. The reaction $K^{39}(d,p)K^{40}$ was investigated with 4.0 MeV deuterons. As a natural potassium mixture was used, only three groups of protons of the most frequently occurring K^{39} could be dissolved. The energy of these groups was determined at 0.82 and 2.06 MeV. The proton group, which leads to the ground state of K^{40} , was also found. For these 3 groups of protons the angular distribution and the angular cross sections were measured and herefrom

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Investigation of the Reactions $K^{39}(d,p)K^{40}$ and
 $Ca^{40}(d,p)Ca^{41}$

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the neutron quantum numbers were derived.

E_d in MeV	proton group in MeV	σ in mb	neutron quantum number
4,0	0	12	$\ell = 3$
4,0	0,82	13	$\ell = 3$
4,0	2,08	58	

2. The reaction $Ca^{40}(d,p)Ca^{41}$ was investigated with deuteron energies of 1.3, 2.2, and 4.0 MeV. For the proton group which leads to the ground state the angular distribution and the corresponding cross sections were measured:

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Investigation of the Reactions $K^{39}(d,p)K^{40}$ and
 $Ca^{40}(d,p)Ca^{41}$

56-6-1/47

E_d in MeV	proton group in MeV	σ in mb
4,0	0	21
2,2	0	2,2
1,3	0	0,04

Especially for K^{40} the angular distribution measured does not agree with that which was computed by means of Butler's theory. There are 7 figures, 2 tables, and 12 references, 3 of which are Slavic.

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: June 16, 1957

AVAILABLE: Library of Congress

Card 3/3

AUTHORS: Teplov, I. B., Yur'yev, B. A.

56-2-11/51

TITLE: The Angular Distribution for Some (d,p)-Reactions
(Uglovyye raspredeleniya dlya nekotorykh reaktsiy (d,p))

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958,
Vol 34, Nr 2, pp 334-340 (USSR)

ABSTRACT: The present work gives the results of the additional investigation of the $S^{32}(d,p)S^{33}$, $P^{31}(d,p)P^{32}$ and $Cl^{35}(d,p)Cl^{36}$ reactions. Furthermore this work gives the angular distribution for two groups of protons with long ranges which are formed in the reaction $Si^{28}(d,p)Si^{29}$ with a deuteron energy of 4 MeV, as well as for the group of protons formed in the reaction $S^{32}(d,p)S^{33}$ which corresponds to the formation of the final nucleus in the ground state. First the methods of experiment are discussed. The angular distribution of the protons is investigated by means of thick-layer photographic plates of the H-KΦ-42 type, all characteristic features of this experiment had already been described in the previous work of the same authors (reference 7). PbS , Zn_3P_2 and $BaCl_2$ were used for the

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The Angular Distribution for Some (d,p)-Reactions

56-2-11/51

production of the thin target. These compounds were evaporated on a basis of gold-leaf. The angular distributions obtained are given in 8 diagrams. The authors point at the differences compared with the results of other works. With chlorine besides the main measurements also secondary measurements were carried out. A table contains the values of the cross sections of the productions of the proton groups investigated. First the angular distributions for the first excited level of Si^{29} , for the doublet of P^{32} and for the ground states of S^{33} and Cl^{36} are investigated. With these 4 experimental angular distributions the most important characteristic feature of the cutoff-reactions can be noticed, i. e. there is a maximum with small emission directions of the protons. There are differences between the experimental and theoretical angular distributions, which all 4 cases have in common. To this belongs a marked background, the displacement of the main maximum to smaller angles (compared with the values calculated according to the theory of S. T. Butler (Butler) (reference 8)). There are 9 figures, 2 tables, and 13 references, 5 of which are Slavic.

Card 2/3

The Angular Distribution for Some (d,p)-Reactions

56-2-11/51

ASSOCIATION: **Moscow State University** (Moskovskiy gosudarstvennyy universitet)

SUBMITTED: September 9, 1957

AVAILABLE: Library of Congress

1. Protons-Angular distribution 2. Protons-Distribution-Theory

Card 3/3

24(5)

AUTHORS:

Komarov, V. V., Neudachin, V. G.,
Popova, A. M., Teplov, I. B.

SOV/56-35-4-22/52

TITLE:

On the Stripping Mechanism in Reactions With Capture
of Two Nucleons (O mekhanizme sryva v reaktsiyakh s
zakhvatom dvukh nuklonov)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1956,
Vol 35, Nr 4, pp 974 - 977 (USSR)

ABSTRACT:

The characteristic feature of angular distribution in
the stripping reactions (d,p) and (d,n) and in the
pickup reactions (p,d) and (n,d) is a maximum within
the range of small angles. According to experiments,
the pickup process may occur also in the reactions
(n,t), (d,t), (d, α), and others. The authors of this
paper carried out a qualitative investigation of
reactions of the type (n,t), (p,t), (n,He³) and (p,He³)
(the reaction (p,t) on Li⁷ was investigated by A.I.
Baz, and A.A.Ogloblin delivered a lecture on this
subject at the Moscow Conference on Nuclear Reactions,

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On the Stripping Mechanism in Reactions With Capture
of Two Nucleons

SOV/56-35-A-22/52

1957). Investigation of reactions of the general type (n,t) is carried out by two processes: a) The process of "successive stripping" $(n-d-t)$ with the formation of deuterium in the intermediate stage, and b) Direct transition $(n-t)$, the simultaneous capture of two nucleons. The authors investigate the angular distribution of the particles resulting from a) and b), taking account of the shell structure of the nucleus, and derive (in Born's approximation) an expression for the differential cross section, which has the following form:

$$\frac{d\sigma}{d\Omega} = \frac{M_n M_t}{4\pi^2 \hbar^4} \frac{k_t}{k_n} \frac{1}{(2S_n+1)(2J_t+1)} i^2.$$

Figure 1 shows the course of the curve for the angular distribution of a process of the type a) of the reaction $\text{Li}^7(p,t)\text{Li}^5$, $E_p=12$ MeV and $l=1$. For process a) as well as for process b) the development of angular distribution is very similar to the

Card 2/4

On the Stripping Mechanism in Reactions With Capture
of Two Nucleons

SOV/56-35-4-22/12

somewhat blurred curves characterizing the ordinary stripping process. The difference between a) and b) consists in the fact that in a) the part played in the ordinary stripping theory by the value of the orbital momentum is played here by 1 and in b) by L. Figure 2 shows the development of the angular distribution of a process b), $\text{Li}^7(p,t)\text{Li}^5$ for $E_p = 12$ and 35 MeV, $L=0$ and figure 3 shows the same for $L=2$. In conclusion, the authors thank S.S. Vasil'yev for discussing the paper, and A.S. Davydov for discussing the questions raised. There are 3 figures and 15 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

Card 3/4

21(7)

AUTHORS: Neudachin, V. G., Teplov, I. B.,
Shevchenko, O. P.

SSR/55-16-1-10/76

TITLE: On the Part Played by the Exchange Effects in Stripping
Reactions (O roli obmennyykh effektov v reaktsiyakh razryva)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,
1959, Vol 36, Nr 3, pp 850-853 (USSR)

ABSTRACT: Consideration of exchange effects in stripping reactions
(Refs 1-3) shows that besides the "common" stripping mechanism,
two further processes must be dealt with: a) the knock out
effect, and b) "heavy particle stripping" (Refs 2-3). In
reference 3 the problem concerning the determination of the
stripping cross section was investigated by means of an
antisymmetric wave function. In the present paper the authors
investigate b) for several simple cases. For the amplitudes of
the processes it holds that

$$I = I_1 + (n - 1)I_2 + (n - 1)I_3$$

$I_1 \rightarrow$ "common" stripping

$n =$ number of nucleons outside
the closed shell in the
primary nucleus

$I_2 \rightarrow$ case a)

$I_3 \rightarrow$ case b)

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SOV/56-56-3-30/71

On the Part Played by the
Exchange Effects in Stripping Reactions

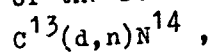
In the following, a very complicated explicit equation is given for the amplitude square of process b), I_3^2 .

For the cases a) $l = 1, j = 1/2, J_1 = 1, T_1 = 0$ (jj-coupling)

b) $l = 1, L_1 = 0, S_1 = 1, T_1 = 0$ (LS-coupling)

c) $l = 0, J_1 = 1, T_1 = 0$

and some special reactions the reaction parameters are then calculated; two diagrams very clearly show the calculated curves; figure 1 shows the differential cross section of the reaction $Si^{29}(d,n)P^{30}$ in the angular range of from 0 to 80°, both for common stripping and for the knock out effect. Figure 2 shows the angular dependence of the differential cross section of the reaction



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On the Part Played by the
Exchange Effects in Stripping Reactions

SOV/56-36-3-30/71

viz. the curves for common stripping, knock out (jj-coupling),
knock out (LS-coupling), and the stripping of heavy particles,
in all cases in the range $0 \leq \vartheta \leq 180^\circ$. There are 2 figures
and 10 references, 2 of which are Soviet.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta (Institute for Nuclear Physics of Moscow
State University)

SUBMITTED: September 10, 1958

Card 3/3

SOV/56-37-2-33/56

21(7)

AUTHORS:

Neudachin, V. G., Teplov, I. B., Tulinov, A. F.

TITLE:

On the Use of (d,p)-Reactions for the Excitation of States With Large Spins

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 2(8), pp 548-550 (USSR)

ABSTRACT:

Gol'danskiy suggested that the inelastic scattering of complex nuclei be used for the excitation of nuclear moments with large spins; the authors of the present "Letter to the Editor" show, on the other hand, that in the case of light nuclei the may be attained by using the (d,p) function. For the stripping process $\vec{J}_1 + \vec{J}_n = \vec{J}_f$, $(\Delta J)_{\max} = j$ holds, where \vec{J}_1 and \vec{J}_f are the spins of the initial and final states respectively, j_n - the total angular momentum of the captured nucleon. Ordinary stripping is forbidden unless this condition is satisfied. In such a case, spin-flip- or knock-out processes with the condition $\vec{J}_1 + \vec{J}_{p_1} + \vec{J}_{n_1} = \vec{J}_f + \vec{J}_{p_2}$, $(\Delta J)_{\max} = j$ are

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SO7/56-37-0000/00

On the Use of (d,p)-Reactions for the Excitation of States With Large Spin

cur; the indices p and n denote proton and neutron respectively in the incident deuteron, p_2 - the departing proton. It can be seen from the equations that in a knock-out process the difference in the spins may, from the initial to the final state, ΔJ , attain a much higher value than in the case of the ordinary stripping process. In order to illustrate these conditions the authors carried out a calculation of the proton angular distribution in the knock-out process $B^{10}(d,p)B^{11*}$ ($E_{exc} = 2.14$ Mev, $J = 1/2^-$), for which the ordinary stripping process is forbidden. The calculation was carried out for the energies $E_d = 4, 8$, and 12 Mev ($R = 4.8 \cdot 10^{-13}$ cm). Results are shown by figures 1 and are compared with Butler's curves. It was found that for all energies the maximum of the curves for the ordinary stripping process is narrower than for the knock-out process. For spin-flip the condition $\vec{J}_1 + \vec{J}_n + \vec{s}_p + \vec{s}_p = \vec{J}_f$, $(\Delta J)_{max} = J + 1$ holds (\vec{s}_p - proton spin). The angular distribution for this

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SOV/56-37-2-33/56

On the Use of (d,p)-Reactions for the Excitation of States With Large Spins

process also deviates from that of the ordinary stripping process. The knock-out and the spin-flip process in the (d,p)-reaction are considerably more sensitive to the nuclear Coulomb field, and as, besides, for the excitation of states with large spins the orbital moments of deuterons, which are different from zero, play the principal part, it is best to use deuterons with energies that are several times higher than the Coulomb barrier, e.g. $E_d \gtrsim 15$ Mev for $Z \sim 12$, $E_d \gtrsim 8$ Mev for $Z \sim 5$. At lower energies the peak again becomes flatter. These conditions are explained on the basis of the reaction $Mg^{24}(d,p)Mg^{25}$ ($E_{exc} = 1.61$ Mev, $J^* = 7/2^+$) at 8 Mev (Ref 11). Figure 5 shows the angular distribution of protons from this process. There are 2 figures and 13 references, 4 of which are Soviet.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of Moscow State University)

SUBMITTED: May 8, 1959
Card 3/3

84386

S/056/60/034/004/048
B004/B070

24.6600

AUTHORS:

Teplov, I. B., Shevchenko, O. P., Ruuge, E. K.

TITLE:

Angular Distribution of α -Particles¹⁹ in $F^{19}(p,\alpha)O^{16}$ Reaction /9

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 4(10), pp. 923-928

TEXT: The purpose of the present work was to study the angular distribution of alpha particles produced by 5.1 - 6.5 Mev protons in the reaction $F^{19}(p,\alpha)O^{16}$. The protons were obtained by accelerating molecular hydrogen in the 120-cm cyclotron at the authors' institute. The experimental arrangement is shown in Fig. 1. The proton energy was measured by slowing them in an aluminum foil (10.5 μ). The particles produced in the reaction were recorded by a telescope consisting of three proportional counters. The counters were arranged in a chamber which could be rotated round the target from 0 to 160°. A pulse height analyzer (Fig. 2) was used to separate the alpha particles from the protons. Fig. 3 shows the energy spectrum of alpha particles emitted at 30° when a

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Angular Distribution of α -Particles in
 $F^{19}(p,\alpha)O^{16}$ Reaction

S/056/60/039/004/004/048
 B004/B070

fluoroplastic target is bombarded with 6.6-Mev protons. The angular distribution of long range particles produced in the reaction $F^{19}(p,\alpha)O^{16}$ and corresponding to the formation of O^{16} nucleus in the ground state ($Q_0 = 8.12$ Mev) was measured for eleven proton energies between 5.15 and 6.68 Mev. The results in the center of mass system are represented in Fig. 4. All the observed angular distributions were strongly anisotropic. The angular distributions obtained experimentally are compared with those calculated on the assumption of direct processes in Fig. 5. The strong dependence of the angular distribution on the proton energy indicates that the mechanism of reaction plays a decisive role. From the study of cross sections and differential cross sections for 30, 90, and 150° (Fig. 6), the authors conclude that when the proton energies lie between 5.1 and 6.5 Mev no particular mechanism of reaction is predominant; direct processes as well as the formation of compound nuclei takes place in this range. The authors thank B. V. Devichev for help in the work. There are 6 figures and 10 non-Soviet references.

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84386

Angular Distribution of α -Particles in
 $F^{19}(p,\alpha)O^{16}$ Reaction

S/056/60/036/004/004/048
B004/B070

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta (Institute of Nuclear Physics of the Moscow
State University)

SUBMITTED: May 6, 1960

Card 3/3

LUK'YANOV, A.V.; ~~TEPLOV, I.B.~~; AKIMOVA, M.K.; DITKIN, V.A, prof., otv. red.;
KORKINA, A.I., tekhn. red.

[Tables of Coulomb wave functions (Whittaker functions)] Tablitsy
volnovykh kulonovskikh funktsii (funktsii Uittakera). Moskva,
Vychislitel'nyi tsentr AN SSSR, 1961. 22p p. (MIRA 14:7)
(Coulomb functions--Tables, etc.)

31780

S/056/61/041/006/027/054
B102/B138

24.6600

AUTHORS: Sukharevskiy, V. G., Teplov, I. B.

TITLE: Coulomb and nuclear interaction in deuteron stripping reactions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,
no. 6(12), 1961, 1842-1844

TEXT: The differential cross sections of the reaction $\text{Si}^{30}(\text{d}, \text{p})\text{Si}^{31}$, induced by 4.25 Mev deuterons was calculated. Coulomb and nuclear interaction was taken into account. Calculations were carried out for formation of the Si^{31} nucleus in the ground state ($l_n = 2, Q = 4.36$ Mev) and for its formation in the first excited state ($l_n = 0, Q = 3.61$ Mev). The maximum orbital momenta of deuteron and proton were taken to be 6 and 8, respectively. The angular distributions were calculated for three cases: 1) Coulomb and nuclear interactions neglected; distribution agrees with Butler's ($R = 6.5 \cdot 10^{-13}$ cm). 2) Allowing only for Coulomb interaction. 3) Allowing for both for the rigid-sphere model with $5.5 \cdot 10^{-13}$ cm radius and

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Coulomb and nuclear interaction in ...

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S/056/61/041/006/027/054
B102/B138

deuteron scattering from the sphere with $R=6.5 \cdot 10^{-13}$ cm. For the ground state the Coulomb interaction causes the main peak to shift $\sim 15^\circ$ to larger angles; in Born's approximation it is at 45° . Nuclear interaction shifts the peak 20° in the other direction. The angular distributions are slightly different from the Butler shape at small angles and have non-vanishing cross sections in the minima. Coulomb and nuclear corrections reduce the cross section values by a factor N : $\sigma(\chi) = N\sigma_0(\chi)$, $\sigma_0(\chi)$ is the differential cross section according to Butler. For deuteron energies of 4.25 Mev in the laboratory system and $E_d/B = 1.1$ in the c. m. s. (B - nuclear Coulomb barrier), the following corrections were calculated: For $l = 0$, $N_{\text{Coul.}} = 0.27$ and $N_{\text{Coul.}+\text{nucl.}} = 0.008$. For $l = 2$, $N_{\text{Coul.}} = 0.03$ and $N_{\text{Coul.}+\text{nucl.}} = 0.004$. In no case is the $N_{l=0}/N_{l=2}$ ratio far from unity. This means that the Butler theory can be used to calculate reduced-width ratio for final-state analyses. There are 1 figure, 1 table, and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-

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Coulomb and nuclear interaction in ...

31780
S/056/61/041/006/027/054
B102/B138

language publication reads as follows: W. Tobocman, M. H. Kalos. Phys. Rev.
97, 132, 1955.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo
universiteta (Institute of Nuclear Physics of Moscow State
University)

SUBMITTED: May 4, 1961

X

Card 3/3

2
TEPLOV, I. B., MAN'KO, V. I., and SALATSKIY V. I.

"Studies on the mechanism of nuclear reactions"

Report presented at the Conference on Nuclear Reactions produced by light nuclei,
Dubna, December 1962.

TEPLOV, I.B.; DMITRIYEV, I.S.; TEPLOVA, Ya.A.; SHEVCHENKO, O.P.

Study of excited states of Be^8 with the aid of the reaction
 $\text{Li}^7(p, \alpha)\text{He}^4$. Izv. AN SSSR. Ser. fiz. 26 no.9:1150-1153 S
'62. (MIRA 15:9)
(Nuclear reactions) (Beryllium—Isotopes)

S/056/62/042/001/033/048
B125/B102

AUTHOR: Teplov, I. B.

TITLE: A possible explanation of the behavior of the differential cross section of the reactions (p, α) and (α, p) in the region of large angles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 1, 1962, 211-216

TEXT: The peaks of the differential cross section of the reactions (p, α) and (α, p) at large angles are calculated on the assumption of a process with local interaction in Born's approximation with plane waves by using the element

$$\langle V \rangle = \int \psi_{im}^*(r) \psi_{0(im)}^*(s) V(r) \psi_{0f}(R) \psi_{m(0f)}(p) \times \\ \times \exp [i(kr + qp + QR)] dr dp dR. \quad (2)$$

of the transition matrix. The subscripts i, f, and m directly refer to the transitions m_i , m_f and m, the subscript 0 refers to that part of the

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A possible explanation of the behavior ... S/056/62/042/001/033/048
B125/B102

nucleus which participates indirectly in the reaction so that
 $M_1 = M_0 + m_f + m$, $M_f = M_0 + m_1 + m$. In this case

$$R = r_0 - r_f, \quad \rho = r_m - \frac{M_0 r_0 + m_f r_f}{M_0 + m_f}, \quad (3)$$

holds with

$S = -\vec{p} + \frac{m_f}{M_1 + m} \vec{R} - \frac{m_1}{m_1 + m} \vec{r}$ and the wave vectors in the exponent under the
integral sign have form

$$k = k_i + \frac{m_f}{M_f} k_f, \quad q = \frac{M_f - m}{M_f} k_i + \frac{m_f + m}{M_f} k_f, \quad (5).$$

$$Q = \frac{M_0 (M_f + m)}{M_f (M_f - m)} k_f.$$

$k = k_2$ and the vector \vec{q} has the same nature as \vec{k}_1 but depends more strongly
on the angle. If a heavy particle is knocked out (the special case of a
Card 2/15

S/056/62/042/001/033/048

A possible explanation of the behavior ... B125/B102

process with local interaction with $M_0 = 0$) $\vec{q} = k$, $\vec{Q} = 0$. In an initial nucleus consisting of some α -particles and a triton, the impinging proton interacts with a triton-type substructure. The α -particle forming in this connection remains in the nucleus and another α -particle leaves the nucleus. If $m_i/(m_i + m)$, $r = r/4$ can be neglected and if the wave function in (2) can be replaced by a δ -function, then the wave functions $\psi_{o(im)}$ and ψ_{of} for a final nucleus in the ground state are spherically symmetric and the matrix element is

$$\langle V \rangle \sim (\kappa^2 + k^2) \exp(-k^2/12\gamma^2) \sin \beta \sum_{L, l, M, m} i^{L+l} \sqrt{(2l+1)/(2L+1)}, \quad (6)$$

$$P_L(\cos \beta) C_{mn}^{LL} C_{mm, M}^{LL} j_L(QR_0) j_l(q\rho_0) Y_L^M(\theta_Q, \varphi_Q) Y_l^{m*}(\theta_q, \varphi_q).$$

$$\kappa^2 = \frac{2mm_l}{\hbar^2(m+m_l)} e = \frac{3m_p}{2\hbar^2} e, \quad \cos \beta = \frac{M_l R_0}{2m_a \rho_0} \left(\frac{\rho_0^2}{R_0^2} - 1 + \frac{m_a^2}{M_l^2} \right). \quad (7).$$

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A possible explanation of the behavior ... B125/B102

l_0 denotes the orbital moment of the triton in the initial nucleus and ϵ is the binding energy of the proton in the α -particle. The dependence of $\sigma(180^\circ)$ on the α -particle energy for $C^{12}(\alpha, p)N^{15}$ calculated with (6) is in satisfactory agreement with the experimental data for the angle of departure of 170° (Fig. 1). The present results are only qualitative. While local-interaction processes explain the peaks of the cross section at large angles, the inverse peaks can be explained also by an ordinary stripping process with distorted waves. V. G. Neudachin is thanked for discussions. There are 2 figures, 1 table, and 10 references: 1 Soviet and 9 non-Soviet. The four most recent references to English-language publications read as follows: J. R. Priest, D. J. Tendam, E. Bleuler. Phys. Rev., 119, 1301, 1960; P. R. Klein, N. Cindro, L. W. Swanson, N. S. Wall. Nucl. Phys., 16, 374, 1960; A. J. Kromminga. I. E. McCarthy. Nucl. Phys., 24, 36, 1961; M. el Nadi. Phys. Rev., 120, 1360, 1960. ✓

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of the Moscow State University)

Card 4/15

A possible explanation of the behavior ... S/056/62/042/001/033/048
B125/B102

SUBMITTED: July 23, 1961

Fig. 1: Dependence of the cross section at an angle of 180° on the energy of the α -particles for the reaction $C^{12}(\alpha, p)N^{15}$ ($R_0 = 6\phi$, $\rho_0 = 5\phi$). The experimental points refer to the angle of 170° .

Legend. (O) according to J. R. Priest et al., Phys. Rev. 119, 1301, 1960; (x) according to I. Nonaka et al., J. Phys. Soc. Japan., 14, 713, 1959).

Fig. 2: angular distributions of the α -particles for the reaction $F^{19}(p, \alpha)O^{16}$ at the following parameter values: $a - R_0 = 4.8\phi$, $\rho_0 = 5.7$; $\sigma - R_0 = \rho_0 = 4.8\phi$.

Legend: (1) ϕ , degree.

Card 5/7
5

24.6600

34634
S/056/62/042/001/007/05
B:02/B:38

AUTHORS. Teplov, I. B., Dmitriyev, I. S., Teplava, Ya. A., Shevchenko, O. P.

TITLE Investigation of α particle angular distribution in $\text{Li}^7(p,\alpha)\text{He}^4$ reactions

PERIODICAL Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 3, 1962, 353 - 357

TEXT. The angular distributions of the α -particles from $\text{Li}^7(p,\alpha)\text{He}^4$ reactions were measured in the range $20^\circ - 60^\circ$ for $E_p = 5.78, 6.13$ and 6.55 Mev using a telescope arrangement of three proportional counters, and Li_2CO_3 targets $0.16, 0.52$, and 0.92 mg/cm^2 thick corresponding to energy losses of 6 -Mev protons of $13, 41$ and 70 kev. The angular distributions were obtained as $d\sigma/d\Omega = (6/4\pi) [1 + A_2 P_2(x) + A_4 P_4(x)]$ with

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3/036/62/042/002/007/003
B:02/B 33

Investigation of α -particle...

E_p , Mev	A_2	A_4	A_6
6.55	-0.169	-0.167	-0.102
6.45	-0.357	-0.356	-0.010
6.38	-0.717	-0.693	-0.085

σ is the total cross section. The experimental results are satisfactorily described, even by $d\sigma/d\Omega = A_2 P_2(x)$. The excitation curves were measured for $6.25 \leq E_p \leq 6.55$ Mev (angle of α -particle emission, 50° or 90° in the c.m.s. 55°) and for $6.3 \leq E_p \leq 6.55$ Mev (60° or 90° in c.m.s.). From the resonance structure of the excitation curve of the $Li^{6,7} \alpha^{24}$ reaction it was found that the reaction takes place mainly via formation of a Be^{10} compound nucleus. The excitation curve has two resonance peaks at 5.5 and 5.6 Mev. The first can be explained if it is assumed that in the Be^{10} nucleus there is a 2^+ level with an excitation energy of 1.9 Mev and a 1^+ level above the resonance range. The second can be explained if the Be^{10} nucleus has a level with 22.3 Mev excitation energy of 1^- Mev width, even spin and positive parity, most probably 2^+ . There are 1 figure and 1 card 2/3

investigation of α -particle...

S/056/62/042/002/007/055
B102/B138

references: 2 Soviet and 7 non-Soviet. The four most recent references :
English-language publications read as follows: J. M. Freeman et al. Nucl
Phys. 2, 148, 1958; F. Ajzenberg, T. Lauritsen. Nucl. Phys. 11, 1, 1958;
F. Hirst et al. Phil. Mag. 45, 762, 1954; J. H. Gibbons, R. L. Macklin,
Phys. Rev. 114, 571, 1959.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo uni-
versiteta (Institute of Nuclear Physics of Moscow State
University)

SUBMITTED: June 18, 1967

Card 3/3

TEPLOV, I.B.; ZAZULIN, V.S.; FATEYEVA, L.N.

Telescope for studying nuclear reactions. Vest. Mosk. un. Ser. 3: Fiz.,
astron. 18 no.6:3-12 N-D '63. (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo
gosudarstvennogo universiteta.

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USSR/Nuclear Physics - Nuclear Reactions.

C-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8828

Author : Teplov, I.S.

Inst : Moscow State University

Title : Investigation of Reactions of the Type (d, p) in Phosphorus and Chlorine.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 31, No 1, 25-30

Abstract : Using Ia-2 photographic plates (100 microns), measurements were made of the angular distributions of protons forming in the $P^{31}(d, p)P^{32}$ and $Cl^{35}(d, p)Cl^{36}$ reactions. A beam of deuterons of approximately 4 Mev was taken from a cyclotron and focused. To absorb the elastically-scattered deuterons there was placed between the target in the photographic plate an aluminum absorber 320 microns thick. The obtained data were used to determine the values of the x orbital angular momenta of the protons in the reactions $P^{31}(d, p)$ and $Cl^{35}(d, p)$ with formation

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USSR/Nuclear Physics - Nuclear Reactions.

C-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8828

of final P^{32} and Cl^{36} nuclei in various states and to determine the parities of these states. Conclusions are drawn concerning the possible values of the spins of the studied states of the P^{32} and Cl^{36} nuclei and concerning the probable configurations of some of these states from the point of view of the shell theory.

Card 2/2

Teplav

I. S.

TEPLOVA, Ye.D., kand.tekhn.nauk; TEPLOV, *I.S.* inzh.; MIROMENKO, Ye.A.,
tekhnik

Effect of nickel and copper on the temper brittleness of
structural chromium-molybdenum-vanadium steel. Metallovedenie 3:39-
50 '59. (MIRA 14:3)

(Chromium-molybdenum steel—Brittleness)

TEPLOV, I. V.

"Angular Distribution of $s^{32}(d,p)s^{33}$ Reaction Products," by
I. V. Teplov, B. A. Yur'yev and T. N. Markelova, Moscow State
University, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki,
Vol 32, No 1, Jan 57, pp 165-166

This work describes measurements of the angular distribution of protons emitted $s^{32}(d,p)s^{33}$ reactions. Deuterons with energies 1.8 and 3.8 Mev were used. Comparison between experimental results and a theoretical distribution computed by Bhatia and others (Phil Mag, 43, 485, 1952) showed the experimental results to have a wider maximum than predicted by the theory. The intensity of a secondary maximum was greater than expected. The article notes that Holt and Marsham (Proc Phys Soc, A66, 467, 1953) found good agreement with this theoretical curve in an experiment with 8.18 Mev deuterons.
(U)

54M.1391

USSR/Cultivated Plants. Technical. Oleaginous. Sugar-Bearing. L-5
Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 57, 69307
Author : Teplov, K.P.
Inst :
Title : Yields of Mustard in Leading Collective Farms in Balashov District.

Orig Pub : V. sb.: Kratkiy otchet o nauch.-issled. rabote Vses. n.-i. in-ta maslich. i efiromaslich. kultur VASKhNIL za 1955 g. Krasnodar, 1956, 177-179

Abst : No abstract.

Card 1/1

TEFLOV, L.

Cybernetics. (Conclusion) Nauka i tekhnolozhiya no.4:3-5, 29 F '57.

TEPLOV, L., inzhener, sportsmen 1-go razryada.

Six-control apparatus for radio-controlled airplane models. Krtl. rei.
8 no. 5:22-25 My '57. (MIRA 10:6)

(Airplanes--Models--Radio control)

85-58-4-26/36

AUTHOR: Teplov, L., Engineer, Sportsman 1st Class

TITLE: Relay for Multi-Control Aircraft Modeling Radio Equipment (Rel'e
dlya mnogokomandnoy aviamodel'noy radioapparatury)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 4, pp 25-28 (USSR)

ABSTRACT: The author describes in detail the home-made polarized and resonance
relays referred to in Kryl'ya Rodiny, 1957, Nr 5, dealing with a six-control
device for a radio-controlled model airplane. There are 25 drawings.

AVAILABLE: Library of Congress

1. Airplanes-Model-Control systems

Card 1/1

AUTHOR: Teplov, L.

SOV/29-58-9-25/30

TITLE: ~~Teleobjective by Maksutov (Teleob"yektiv Maksutova)~~

PERIODICAL: Tekhnika molodezhi, 1958, Nr 9, pp 33 - 33 (USSR)

ABSTRACT: A reporter from the periodical "Tekhnika molodezhi" paid a visit to the famous Soviet optical scientist D.D. Maksutov in the Observatory of Pulkovo. Here he was confronted with one of the last works of the scientist, with the meniscus-teleobjective. Photographs taken during his visit (Figs 1,2,3) show that Maksutov created a device which is irreplaceable in almost all kinds of photographs in nature. The ordinary object lens of the "Zenit" camera, the "Industar-22" comes with a focal length of 5 cm. The telephoto lens by Maksutov, however, has a focal length of 50 cm. That means that it produces a picture enlarged to a scale of 10. It has an overall length of 19 cm, a diameter of 9 cm and it weighs 900 gr. The optical surfaces are all spherical. The essential feature of this objective is that Maksutov applied the principle of a catadioptric or of a meniscus telescope.

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There are 3 figures.

AUTHOR: Teplov, L.

29-3-12/25

TITLE: Doctor Leysber's Present (Podarok doktora Leyshera)

PERIODICAL: Tekhnika Molodezhi, 1958, Vol. 26, Nr 5, pp. 17-18 (USSR)

ABSTRACT: As mentioned in the epilogue, this report was not written in view of making propaganda for the achievements in the field of medicine. The author rather intended - within the frame of an extraordinary situation - to persuade the reader that a really human behavior and unselfish love are able to conquer a vice, no matter how obdurate it may be. Yet it is interesting also from the medical point of view, whether such an "operation" would be possible at all. The thorough separation of the medulla oblongata through the rear part of the inter- brain has already been frequently applied with animal experiments and is called decerebra- tion. It was observed that the respiratory actions and respiratory reflexions (coughing, sneezing), as well as the regulation of the digestion and of the circulation of the blood remained quite normal. A shock as it occurs with the damaging of the spinal cord, was not observed. Modern

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Doctor Leysber's Present

29-5-12/25

surgery achieved great success in the field of cranium and cerebral operations. According to reports of the Polish press, the left hemisphere with an acute inflammation was removed from a young girl in Warsaw in 1957. Due to the fact that all analysers are twice present in the brain, the right hemisphere took over all functions and the girl recovered. It would be much more complicate to preserve the functioning of the inter-brain and front-brain, especially of the grey substance of the two hemispheres which were separated during the transplantation. Apparatus for the artificial circulation and hypothermy should have been used most presumably (undercooling of the brain by 10 to 12° below the normal temperature). With hypothermy the sensitiveness of the cells decreases, but is completely restored afterwards. A possible incongruity of the nerve-tracts would presumably be remedied without difficulty. The Soviet physiologist P. K. Anokhin directed the nerve-tracts intentionally in opposed directions. Yet the functions normalize after some time. The greatest difficulty with transplantations consists in the fact that the organism is hypersensitive against foreign albumen and that it endeavors to destroy these inclusions. Science is not yet in a position to carry out such an operation successfully.

1. Brain-Surgery-Theory 2. Brain surgery-Physiological effects

Card 2/2

AUTHOR: Teplov, L.

SOV/29-58-8-20/23

TITLE: The Electron in Representative Art (Elektron v izobrazitel'nom iskusstve)

PERIODICAL: 26-
Tekhnika molodezhi, 1958, Nr 8, pp. 37-39 (USSR)

ABSTRACT: In this article the author tells how it is possible to utilize distortions occurring with the transformation of an image during electronic transmission for purposes of art. He explains transformation in connection with scanning. Figure 1 shows a simple device for direct- and for back-scanning such as is, e.g. used in telephotography. To the left of it there is a multicolored picture and to the right a picture in one color only. This is the result of color transformation. This system has, however, two disadvantages. Firstly, this device cannot operate at high speeds, and secondly transformation of a polychromatic into a monochromatic picture is inevitable because only one channel of color characteristics exists. Figure 2 shows a more complete scanning system. It is sometimes necessary to bring out the dark hues and to weaken transitions in brighter hues. This can be accomplished by means of a lamp, the characteristics of which are shown by a diagram (Fig 3). In electronics relays are used. These devices

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4 The Electron in Representative Art

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are described by a diagram (Fig 4). If several relays with different stages of sensitivity are arranged according to different channels of color characteristics, it is possible to obtain interesting placardlike transformations (Fig to the right of 4). By means of higher mathematical computations it is possible to detect blurred contours (Fig 5). After having determined the contours it is possible to obtain a sharp picture on the kinescope screen. In order to obtain deep shades or light-effects in a picture, the raster method as is used by engravers and printers, is employed. In 1927 the inventor Ayva recommended a method by means of which a raster can be produced by scanning. The image is projected on to a film of an illuminated diaphragm which is regulated by means of an electromagnet and which contracts and expands. In a similar manner it appears to be possible to obtain rasters also on a kinescope screen (Fig 7). All this is necessary in order to attain the greatest possible number of impressive effects in a television- or film performance, because touching up by hand is not possible. The first new achievement in the field of the electronic transformation of images was the construction of some complicated

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The Electron in Representative Art

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automatic devices in the USA which serve the purpose of touching up colored photos to be reproduced in books or periodicals. The scheme of the color separator and of the corrector of the periodical "Time-Life" ("Taym-Layf") is shown by figure 8. Gradually, electronic automatic machines will probably be used also for more complicated work. There are 11 figures.

1. Pictures--Transmission
2. Cathode ray tubes--Performance
3. Televisions
4. Iconoscopes

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28(2)

AUTHOR: Teplov, L.

SOV/29-59-2-4/41

TITLE: Brain and Machine (Mozg i mashina)

PERIODICAL: Tekhnika molodezhi, 1959²¹⁻, Nr 2, pp 5-6 (USSR)

ABSTRACT: In this popular-scientific article, the author tries to compare the human brain and the machine. For centuries mankind has admired the function of the brain and tried to explain it in various ways. The first to compare the human brain with a machine was René Descartes (1596-1650). Later, the great Russian scientist Ivan Petrovich Pavlov (1849-1936) compared the brain with a telephone exchange. But all these comparisons were incomplete. The modern electron calculators designed 10 years after Pavlov's death are much more similar to the brain. The elements of the calculator, especially the triggers, strongly remind its nerve cells. They can forward signals in one direction and record two extreme terms. Besides, they can confront signal series to each other and form and retransmit signals according to the most simple rules of logic. Automatic translations, solutions of chess problems and many other tasks carried out by electron calculators have shown a great similarity to the function of the brain. Yet they work in a way different from

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